

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A routing processing device which identifies one or a plurality of types of packet formats, and performs routing processing for each packet type, comprising:

 a packet information extraction portion, which extracts from a packet for identification a prescribed range of fields including at least one identifying information item which identifies the packet type;

 a packet judgment portion, which judges the packet type based on whether the identifying information item in a first prescribed position among said extracted fields includes one of a type or a length identifier;

 a header imparting portion, which creates header information according to the packet type based on the judgment result of said packet judgment portion and imparts the header information to the packet;

 a packet sorting portion which sorts packets based on said header information imparted to the packets; and,

 a routing processing portion which performs routing processing of packets sorted by said packet sorting portion, according to the packet type.

2. (Previously Presented) The routing processing device according to Claim 1, further comprising:

 a settings table which associates packet types with said routing processing portion, and wherein said header imparting portion creates the packet header information designating said routing processing portion further based on the settings table.

3. (Original) The routing processing device according to Claim 1, wherein said header imparting portion imparts header information containing discarding instruction information to the packet when the packet is not to be subjected to routing processing, and said packet sorting portion discards the packet based on said discarding instruction information.

4. (Previously Presented) The routing processing device according to Claim 1, wherein the prescribed position in said extracted fields is variable.

5. (Currently Amended) A packet type identification device, which identifies one or a plurality of types of packet formats, comprising:

a packet information extraction portion, which extracts from a packet for identification a prescribed range of fields including at least one identifying information item which identifies the packet type; and

a packet judgment portion, which judges the packet type based on whether the identifying information item in a first prescribed position among said extracted fields includes one of a type or a length identifier.

6. (New) The device according to Claim 1, wherein:

if the identifying information item in the first prescribed position lacks the type identifier, the packet judgment portion judges the packet type based on whether the identifying information item in a second prescribed position among the extracted fields includes one of the type or length identifier.

7. (New) The device according to Claim 5, wherein:

if the identifying information item in the first prescribed position lacks the type identifier, the packet judgment portion judges the packet type based on whether the identifying information item in a second prescribed position among the extracted fields includes one of the type or length identifier.

8. (New) A method, comprising:

receiving a packet;

extracting a pre-specified range of fields from the received packet;

identifying a first information item in a first pre-specified position in the extracted range of fields;

based on the identified first information item, one of:

determining a type of the received packet based on the first information item if the first information item includes a type identifier, or

identifying a second information item in a second pre-specified position in the extracted range of fields if the first information item lacks a type identifier, and

one of (a) determining a type of the received packet based on the second information item if the first information item includes a length identifier or the second information item includes the type identifier, or (b) determining a type of a packet based on a third information item in a third pre-specified position in the extracted range of fields if the second information item includes a length identifier;

creating header information based on the determined packet type; and

routing the packets based on the packet type.